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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/707,590   | 12/23/2003  | Robert L. Wheeler    | 1027.02             | 1589             |
| 21901  | 7590        | 06/20/2005           | EXAMINER            |                  |
| SMITH & HOPEN PA<br>15950 BAY VISTA DRIVE<br>SUITE 220<br>CLEARWATER, FL 33760 |             |                      | WRIGHT, ANDREW D    |                  |
|  |             | ART UNIT             | PAPER NUMBER        |                  |
|  |             |                      | 3617                |                  |

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                           |                  |
|------------------------------|---------------------------|------------------|
| <b>Office Action Summary</b> | Application No.           | Applicant(s)     |
|                              | 10/707,590                | WHEELER ET AL.   |
|                              | Examiner<br>Andrew Wright | Art Unit<br>3617 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 13 April 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 and 3-10 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 7 is/are rejected.  
 7) Claim(s) 3-6 and 8-10 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/13/05 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford (US 5,146,863) in view of Cockerell (US 4,133,282). Regarding claim 1, Ford shows a watercraft with a hull with a bow, stern, sidewalls, and deck. The hull has a concavity (38) that is longer than it is wide. The concavity has forward end (40) near the bow and rearward end (50) forward of the stern. Air flows into the forward end and out of the rearward end. The air flow reduces skin friction. Ford discloses an air supply device (58) that can be a fan (column 4, lines 11-13). Air supply device (58) has a scoop (not numbered). The scoop directs air into the concavity regardless of the

direction of travel. Passageway (60) extends from the scoop to a leading end of the concavity. Water flowing under the watercraft is capable of creating a suction that will draw air into the passageway and concavity. The scoop is mounted at least indirectly mounted on the bow.

4. Still regarding claim 1, Ford does not disclose that the air scoop collects ambient air and directs ambient air to the concavity. Ford does show that the air generally comes from the interior (26) of the hull, as indicated by the arrows in figure 1. The skilled artisan will recognize that the interior of the hull must be vented to allow ambient air into the hull. Otherwise the supply device (58) would have only a finite amount of air and the range of the vessel would be small. Cockerell shows an air cushion boat with fans (24) like that of Ford. Cockerell shows that it is known to provide the fan with a duct (25) for supplying ambient air to the fan. The ambient air is then directed to the bottom of the hull to provide the air cushion. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ford by providing an intake duct to supply ambient air to the supply device (58). The motivation would be to provide an unlimited supply of air to the air cushion vehicle.

5. Regarding claim 7, Ford does not show that the scoop is elliptical. It is within the range of knowledge of the skilled artisan to make the air scoop any desired shape. Elliptical scoops are known on blowers and automobiles. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ford by making the air scoop elliptical. The motivation would be to optimize

design parameters such as size, weight, and component layout by optimizing the shape of the air scoop.

***Allowable Subject Matter***

6. Claims 3-6 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1 and 3-10 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. Any inquiry concerning this communication should be directed to examiner Andrew D. Wright at telephone number 571-272-6690. The examiner can normally be reached Monday-Friday from 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano, can be reached at 571-272-6684. The fax number for official communications is 703-872-9306. The fax number directly to the examiner for unofficial communications is 571-273-6690.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew D. Wright  
Patent Examiner  
Art Unit 3617

ANDREW D. WRIGHT  
PRIMARY EXAMINER

AN-61105